



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,194	12/04/2001	Tzvi Avnery	2251.2003-001	6951

7590

11/27/2002

James M. Smith, Esq.
HAMILTON, BROOK, SMITH & REYNOLDS, P.C.
530 Virginia Road
P.O. Box 9133
Concord, MA 01742-9133

EXAMINER

LEYBOURNE, JAMES J

ART UNIT

PAPER NUMBER

2881

DATE MAILED: 11/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/005,194

Applicant(s)

AVNERY, TZVI

Examiner

James J Leybourne

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 14-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30-36 is/are allowed.
- 6) ☒ Claim(s) 1,4,6,9,14,17,19,22,25 and 27 is/are rejected.
- 7) ☒ Claim(s) 2,3,5,7,8,10,15,16,18,20,21,23,24,26,28 and 29 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 and 6. 6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4, 6, 9, 14, 17, 19, 22, 25 and 27 are rejected under 35 U.S.C. 102(b) as being unpatentable over Kondo et al. (USPN 5072124). In figure 2, Kondo et al. disclose a fluid sterilization system having a nozzle 25 for receiving pressurized fluid (the pressure provided by the height of the water inlet) and directing a thin, flat film of (spray) of the fluid substantially parallel and proximate to the exit window of an electron beam generator 12 having an exit window, the electron beam generator being mounted to direct a beam of electrons through the exit window to irradiate the spray of fluid. A housing (chamber with cavity therein) to provide safety and an outlet to remove the sterilized fluid are inherent.

Allowable Subject Matter

3. Claims 2, 3, 5, 7, 8, 10, 15, 16, 18, 20, 21, 23, 24, 26, 28, and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in

Art Unit: 2881

independent form including all of the limitations of the base claim and any intervening claims.

4. Claims 11-13, 30-33 and 34-36 are allowed.

5. The following is an examiner's statement of reasons for allowance:

Regarding independent claim 11, the prior art fails to disclose or make obvious a fluid sterilization apparatus comprising:

a container for containing a supply of fluid;

a wheel system having circumferential surfaces, the wheel system being rotatably mounted within the container, a portion of the wheel system for extending above the supply of fluid with rotation of the wheel system drawing a film of fluid upwardly out of the supply of fluid on the circumferential surfaces;

a doctoring member for controlling the thickness of the film of fluid on the circumferential surfaces of the wheel system;

an electron beam generator for irradiating the film of fluid with a beam of electrons to sterilize the fluid; and

a fluid removal member for removing sterilized fluid from the wheel system.

Claims 12–13 are allowed because they are dependent on claim 11.

Regarding independent claim 31, the prior art fails to disclose a method of forming a fluid sterilization apparatus comprising providing the apparatus of claim 11.

Claims 30, 32 and 33 are allowed because they depend on claim 31.

Regarding independent claim 34, the prior art fails to disclose or make obvious a method of sterilizing fluid comprising:

drawing a film of fluid upwardly out of a supply of fluid contained within a container on circumferential surfaces of a rotating wheel system rotatably mounted within the container, a portion of the wheel system extending above the supply of fluid;

controlling the thickness of the film of fluid on the circumferential surfaces of the wheel system with a doctoring member;

irradiating the film of fluid with a beam of electrons from an electron beam generator to sterilize the fluid; and

removing the sterilized fluid from the wheel system with a fluid removal member.

Claims 35 and 36 are allowed because they are dependent on claim 34.

The main feature that separates the applicant's water treatment device and method for water treatment from prior art is the use of a roller that lifts the fluid to be treated from a container.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

Art Unit: 2881

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Leybourne whose telephone number is (703) 305-7067. The examiner can normally be reached on M-F 9:00 - 6:03.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee can be reached on (703) 308-4119. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956

November 23, 2002

JJL

BRUCE ANDERSON
PRIMARY EXAMINER